

What is claimed is:

1 1. A method for electronic tuning of the
2 frequency of the read oscillation to the frequency of the
3 stimulation oscillation in a resetting Coriolis gyro (1'),
4 wherein
5 - the resonator (2) of the Coriolis gyro (1') has a
6 disturbance force applied to it such that
7 a) the stimulation oscillation remains essentially
8 uninfluenced, and
9 b) the read oscillation is changed such that a read signal
10 which represents the read oscillation, contains a
11 corresponding disturbance component, wherein
12 - the disturbance force is defined as that force which is
13 caused by the signal noise in the read signal, and
14 - the frequency of the read oscillation is controlled such
15 that the magnitude of the disturbance component, which is
16 contained in the read signal, is as small as possible.

1 2. The method as claimed in claim 1,
2 characterized in that the signal noise is the noise of the
3 tapping electronics.

1 3. The method as claimed in claim 1 or 2,
2 characterized in that the disturbance component is
3 determined from a signal which is applied to a quadrature
4 regulator (17) in the quadrature control loop, or is
5 emitted from it.

1 4. The method as claimed in claim 1 or 2
2 characterized in that the disturbance component is
3 determined from a signal which is applied to a rotation
4 rate regulator (21) in the rotation rate control loop, or
5 is emitted from it.

1 5. The method as claimed in one of the preceding
2 claims, characterized in that the frequency of the read
3 oscillation is controlled by controlling the intensity of
4 an electrical field in which a part of the resonator (2) of
5 the Coriolis gyro (1') oscillates.

1 6. A Coriolis gyro (1'), characterized by a
2 device for electronic tuning of the frequency of the read
3 oscillation to the frequency of the stimulation
4 oscillation, having:
5 - a noise detection unit (26) which determines the noise
6 component of a read signal which represents the read
7 oscillation, and
8 - a control unit (27), which controls the frequency of the
9 read oscillation such that the magnitude of the noise
10 component, which is contained in the read signal, is as
11 small as possible.

1 7. The Coriolis gyro (1') as claimed in claim 6,
2 characterized in that the noise detection unit (26)
3 determines the noise component from a signal which is
4 applied to a rotation rate regulator (21) in a rotation
5 rate control loop in the Coriolis gyro (1'), or is emitted
6 from it.

8. The Coriolis gyro (1') as claimed in claim 6,
characterized in that the noise detection unit (26)
determines the noise component from a signal which is
applied to a quadrature regulator (21) in a quadrature
control loop in the Coriolis gyro (1'), or is emitted from
it.